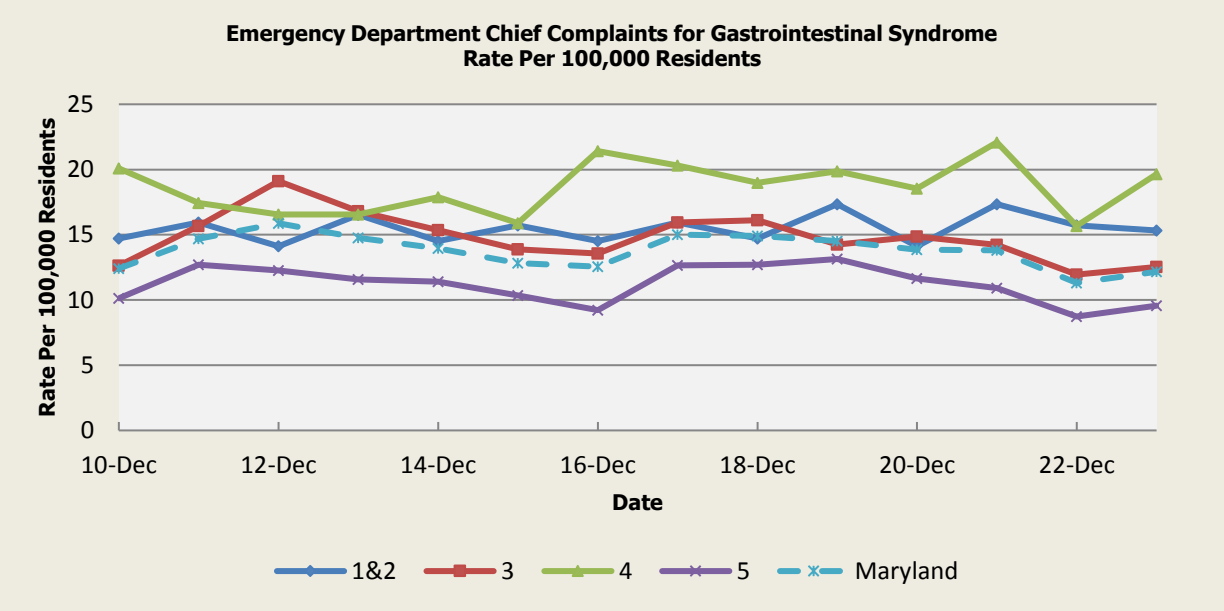
December 29, 2017

Public Health Preparedness and Situational Awareness Report: #2017:51 Reporting for the week ending 12/23/17 (MMWR Week #51)

CURRENT HOMELAND SECURITY THREAT LEVELS
National: **No Active Alerts**
Maryland: **Normal (MEMA status)**

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics): Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census. Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE). Baltimore, MD: Maryland Department of Health; 2017.



There were eleven (11) Gastrointestinal Syndrome outbreaks reported this week: five (5) outbreaks of Gastroenteritis in Nursing Homes (Regions 1&2,3,5); three (3) outbreaks of gastroenteritis in Assisted Living Facilities (Region 3); one (1) outbreak of Gastroenteritis in a Residential Treatment Program (Regions 1&2); one (1) outbreak of Gastroenteritis associated with a Daycare Center (Region 5); one (1) outbreak of Gastroenteritis in a Detention Center (Region 3).

	Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.91	15.05	15.46	1.02	1.30
Median Rate*	12.91	14.80	15.02	10.22	12.95

* Per 100,000 Residents

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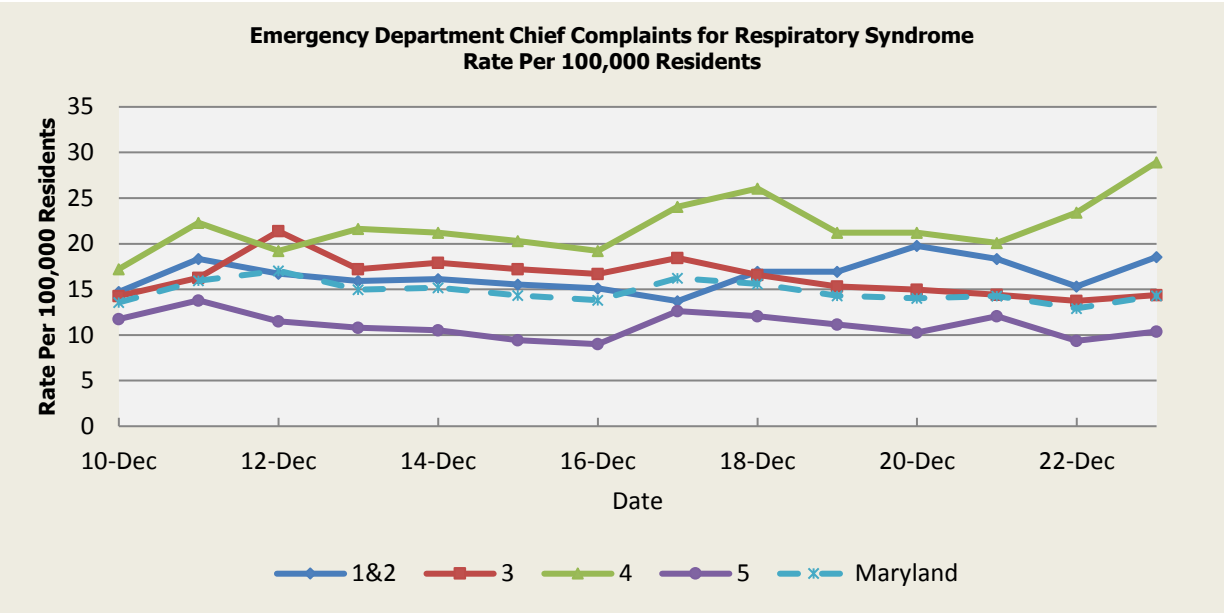
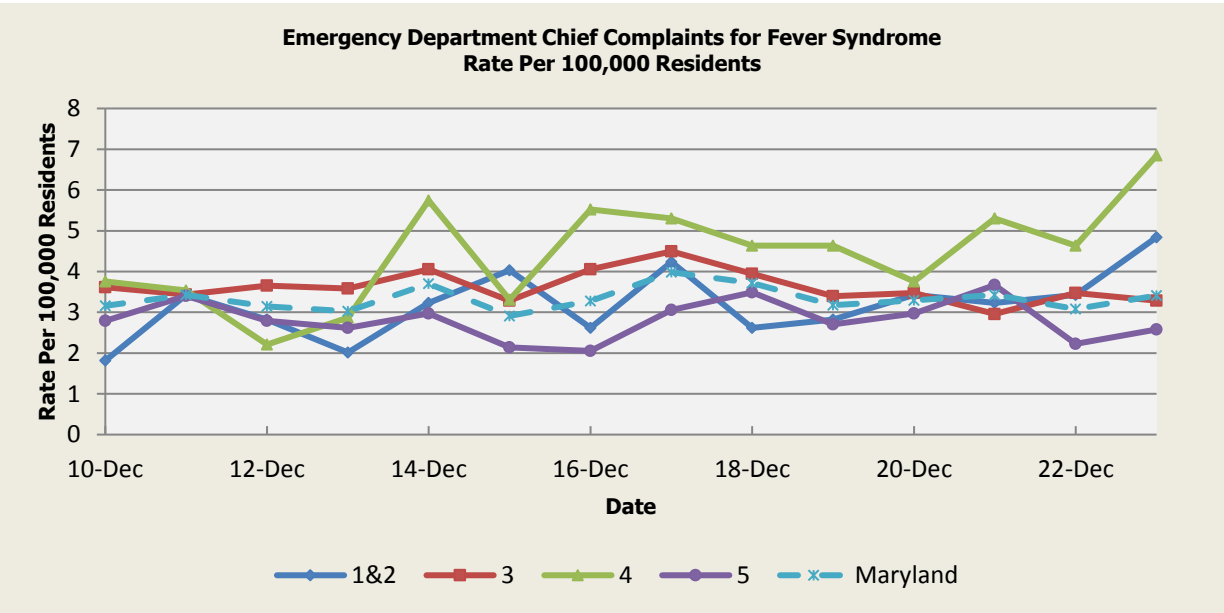


There was three (3) Respiratory illness outbreaks reported this week: two (2) outbreaks of Influenza associated with Schools (Region 4); one (1) outbreak of Pertussis associated with a Team (Region 3).

	Respiratory Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.05	14.41	14.35	9.84	12.46
Median Rate*	11.70	13.88	13.91	9.65	12.05

* Per 100,000 Residents



There were no Fever Syndrome outbreaks reported this week.

	Fever Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	2.98	3.84	3.95	3.03	3.47
Median Rate*	2.82	3.76	3.75	2.97	3.40

Per 100,000 Residents

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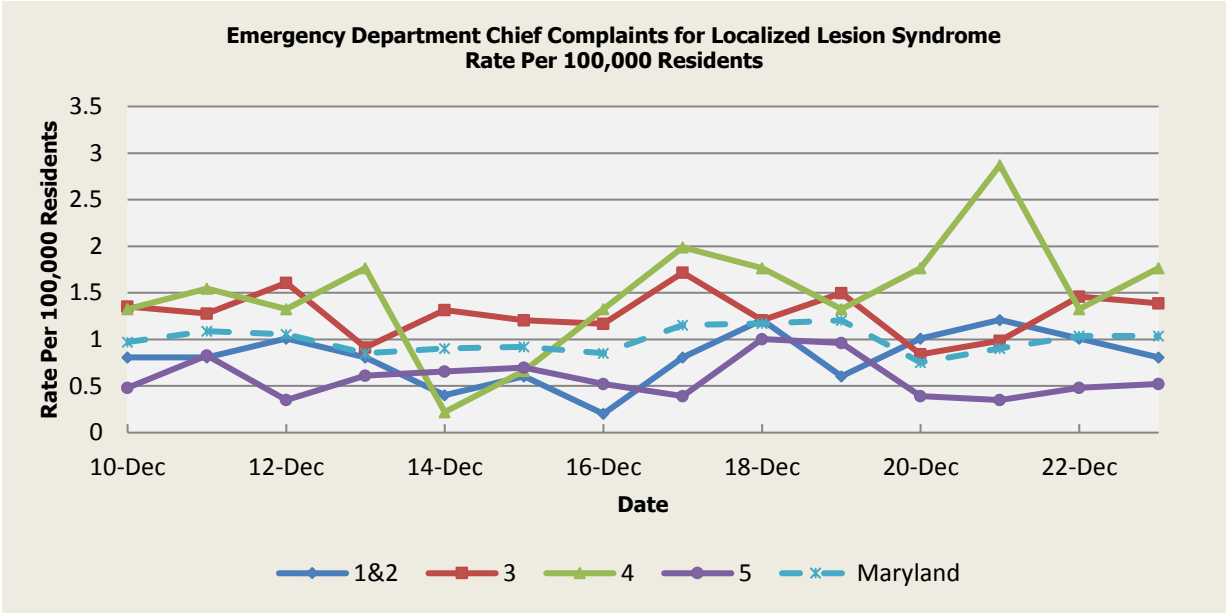
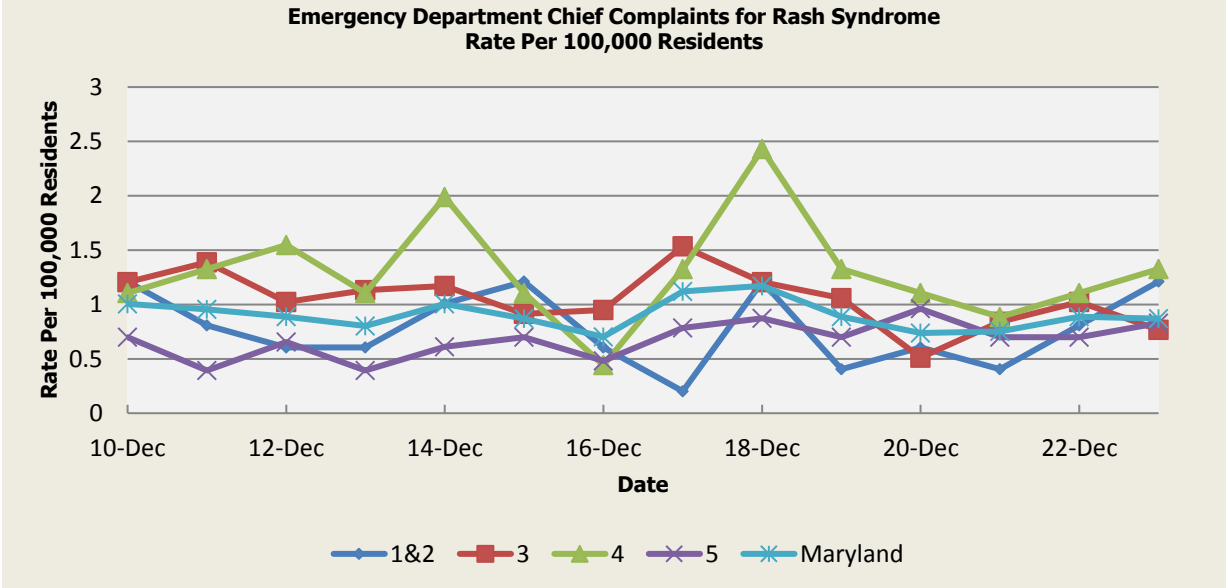


There were no Localized Lesion Syndrome outbreaks reported this week.

	Localized Lesion Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.05	1.87	2.04	0.95	1.46
Median Rate*	1.01	1.83	1.99	0.92	1.42

* Per 100,000 Residents



There were two (2) Rash Syndrome outbreaks reported this week: one (1) outbreak of Hand, Foot, and Mouth Disease associated with a Daycare Center (Region 5); one (1) outbreak of Fifth Disease associated with a School (Region 3).

	Rash Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.23	1.74	1.76	1.02	1.42
Median Rate*	1.21	1.68	1.77	1.00	1.39

* Per 100,000 Residents

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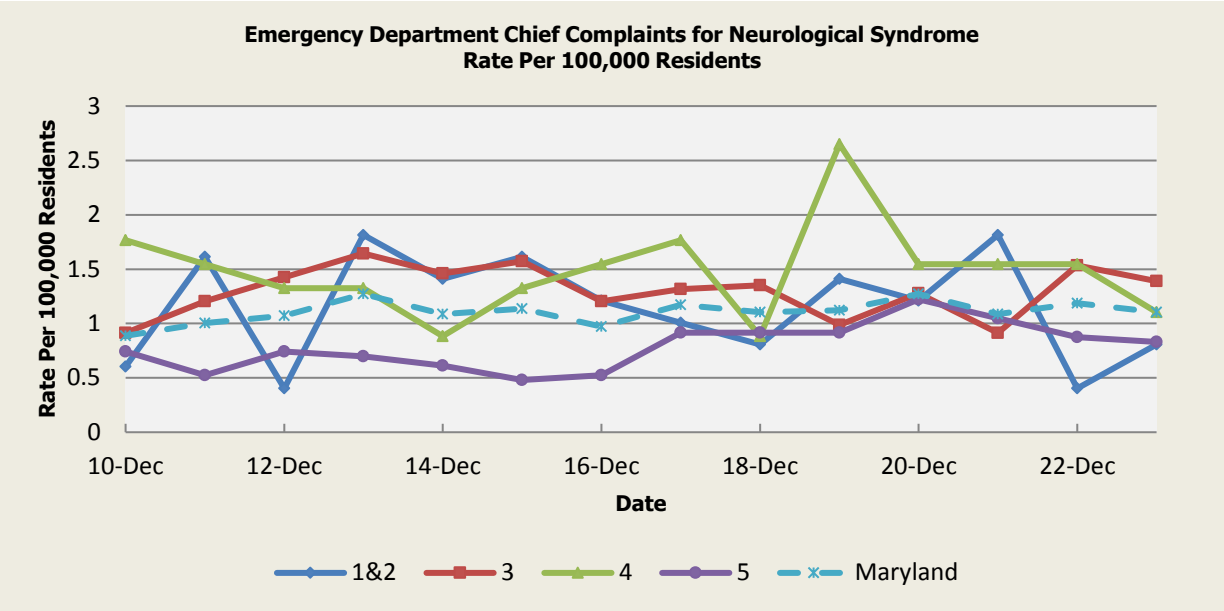
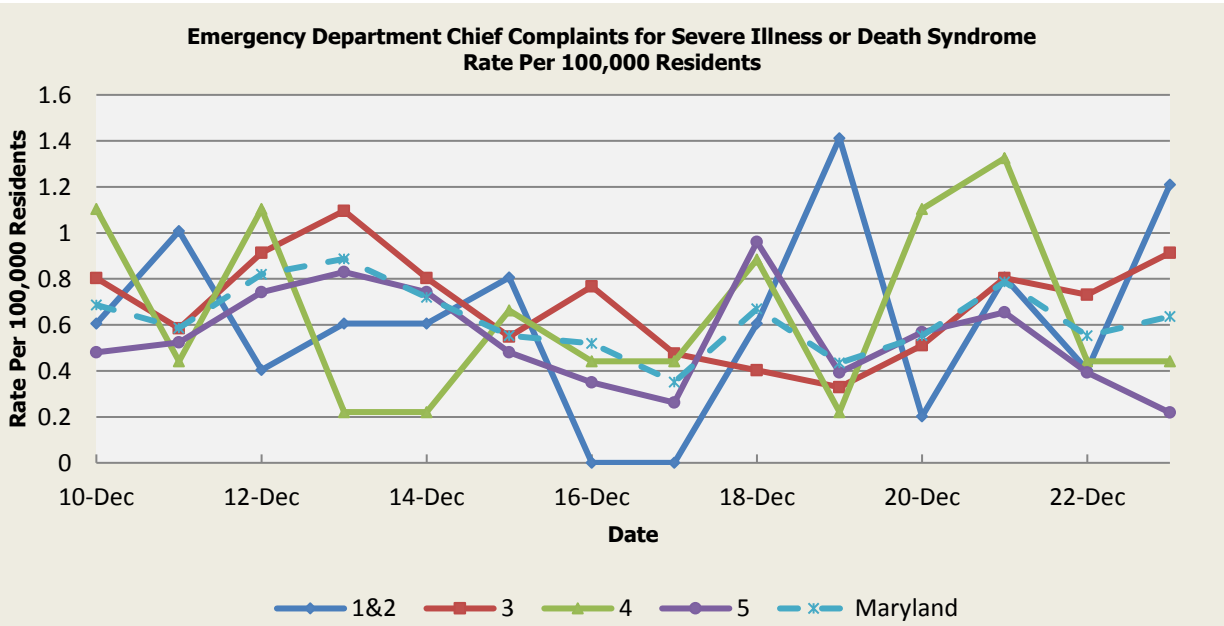


There were no Neurological Syndrome outbreaks reported this week.

	Neurological Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.69	0.84	0.73	0.53	0.70
Median Rate*	0.60	0.69	0.66	0.48	0.59

* Per 100,000 Residents



There were no Severe Illness or Death Syndrome outbreaks reported this week.

	Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.63	0.90	0.80	0.46	0.70
Median Rate*	0.60	0.91	0.66	0.44	0.70

* Per 100,000 Residents

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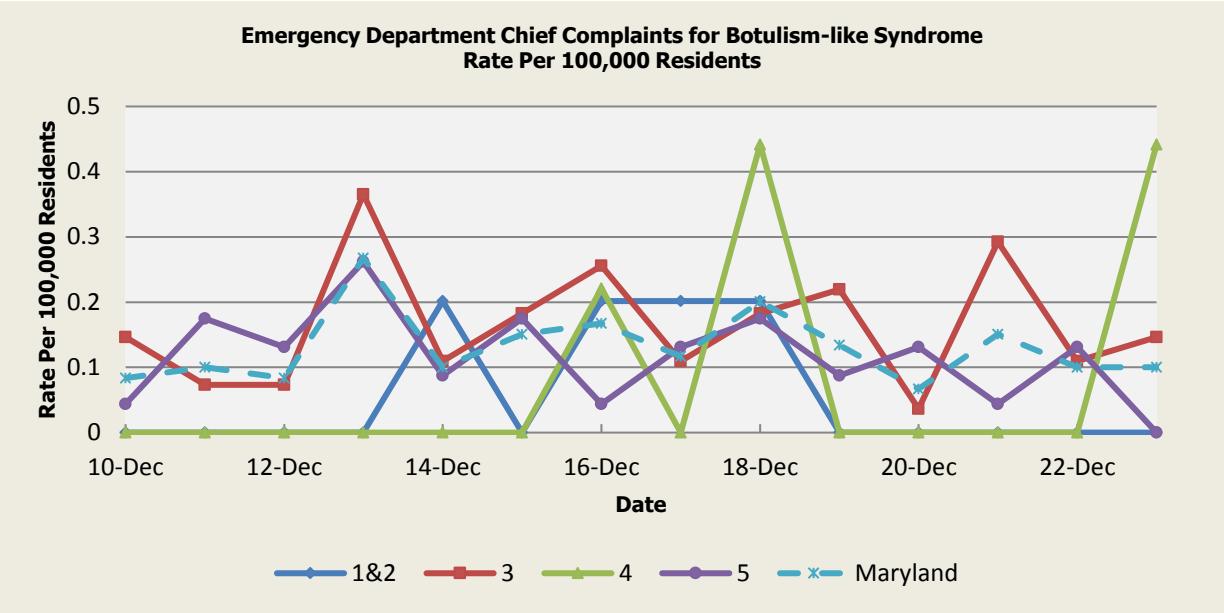
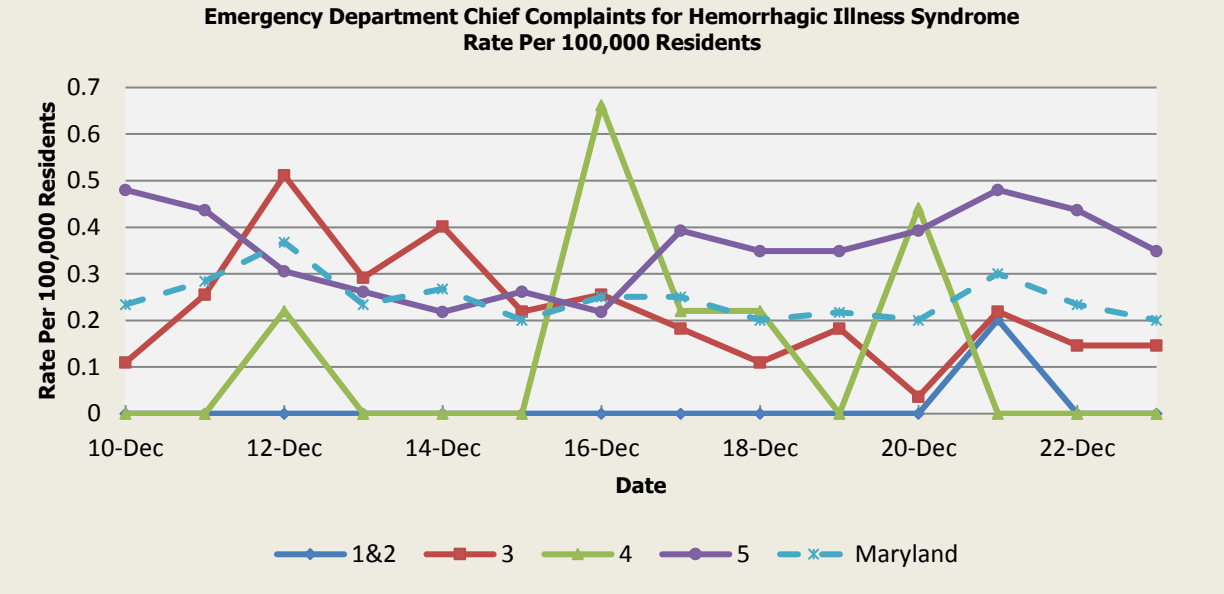
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 12/11 (Region 5), 12/12 (Region 5), 12/13 (Region 3), 12/14 (Regions 1&2,5), 12/15 (Region 5), 12/16 (Regions 1&2,3,4), 12/17 (Regions 1&2,5), 12/18 (Regions 1&2,4,5), 12/19 (Region 3), 12/20 (Region 5), 12/21 (Region 3), 12/22 (Region 5), 12/23 (Region 4). These increases are not known to be associated with any outbreaks.

	Botulism-like Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.07	0.10	0.05	0.06	0.08
Median Rate*	0.00	0.07	0.00	0.04	0.05

* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 12/10 (Region 5), 12/11 (Region 5), 12/12 (Regions 3,4,5), 12/13 (Regions 3,5), 12/14 (Region 5), 12/15 (Region 5), 12/16 (Regions 4,5), 12/17 (Regions 4,5), 12/18 (Regions 4,5), 12/19 (Region 5), 12/20 (Regions 4,5), 12/21 (Regions 1&2,5), 12/22 (Region 5), 12/23 (Region 5). These increases are not known to be associated with any outbreaks.

	Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.13	0.03	0.10	0.10
Median Rate*	0.00	0.04	0.00	0.04	0.05

* Per 100,000 Residents

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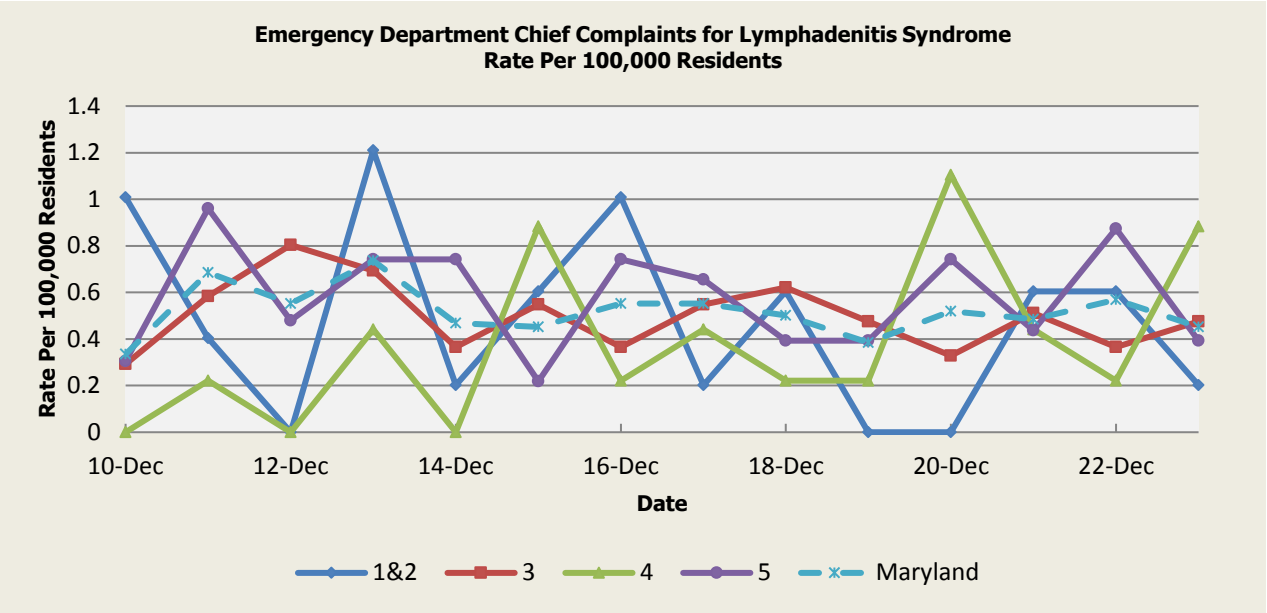

There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 12/10 (Regions 1&2), 12/11 (Region 5), 12/12 (Region 5), 12/13 (Regions 1&2,5), 12/14 (Region 5), 12/15 (Regions 1&2,4), 12/16 (Regions 1&2,5), 12/17 (Region 5), 12/18 (Region 5), 12/19 (Region 5), 12/20 (Regions 1&2,4,5), 12/21 (Region 5), 12/22 (Region 5), 12/23 (Regions 4,5). These increases are not known to be associated with any outbreaks.

	Lymphadenitis Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.32	0.55	0.36	0.33	0.43
Median Rate*	0.20	0.40	0.22	0.26	0.33

* Per 100,000 Residents

MARYLAND REPORTABLE DISEASE SURVEILLANCE

	Counts of Reported Cases‡					
Condition	December			Cumulative (Year to Date)**		
Vaccine-Preventable Diseases	**2017**	**Mean***	**Median***	**2017**	**Mean***	**Median***
Meningococcal disease	0	0.2	0	8	4.6	4
Measles	0	0	0	4	5.2	4
Mumps	1	1.8	2	25	45	24
Rubella	0	0.6	1	1	6	5
Pertussis	11	34.6	33	215	371.4	389
Foodborne Diseases	**2017**	**Mean***	**Median***	**2017**	**Mean***	**Median***
Salmonellosis	25	32.6	31	879	931.4	932
Shigellosis	3	8.8	6	237	207.2	223
Campylobacteriosis	24	36.8	38	853	766.2	773
Shiga toxin-producing Escherichia coli (STEC)	9	6.6	7	198	154	146
Listeriosis	1	1.2	1	28	18.2	16
Arboviral Diseases	**2017**	**Mean***	**Median***	**2017**	**Mean***	**Median***
West Nile Fever	0	0.2	0	4	14.6	13
Lyme Disease	90	108.6	127	3337	3054.2	2861
Emerging Infectious Diseases	**2017**	**Mean***	**Median***	**2017**	**Mean***	**Median***
Chikungunya	0	0.4	0	0	11.4	0
Dengue Fever	0	0.8	0	25	30.2	24
Zika Virus***	0	1	0	4	19.2	8
Other	**2017**	**Mean***	**Median***	**2017**	**Mean***	**Median***
Legionellosis	8	12.4	11	233	183.6	190
Aseptic meningitis	19	26.8	28	431	464.8	478

NEDSS data: Maryland National Electronic Disease Surveillance System (NEDSS). Baltimore, MD: Maryland Department of Health; 2017. ‡ Counts are subject to change *Timeframe of 2011-2017**Includes January through current month. *** As of December 29, 2017, the total Maryland Confirmed and Probable Cases of Zika Virus Disease and Infection for 2017 is 67.

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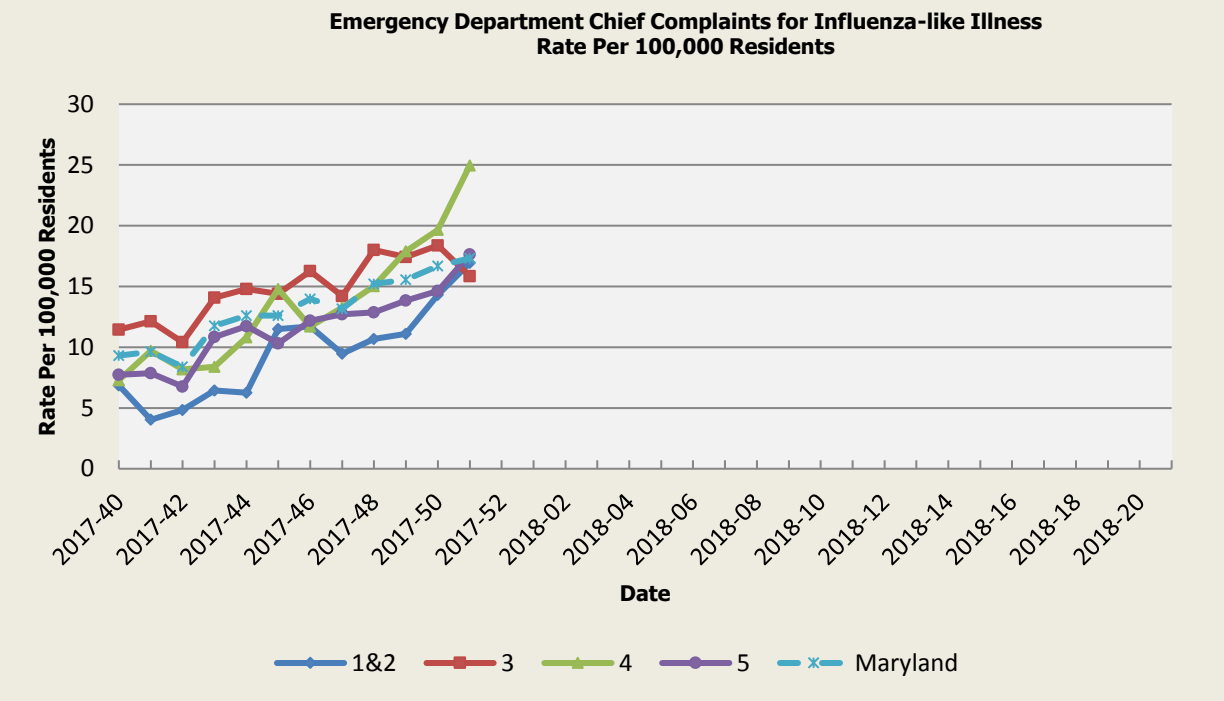
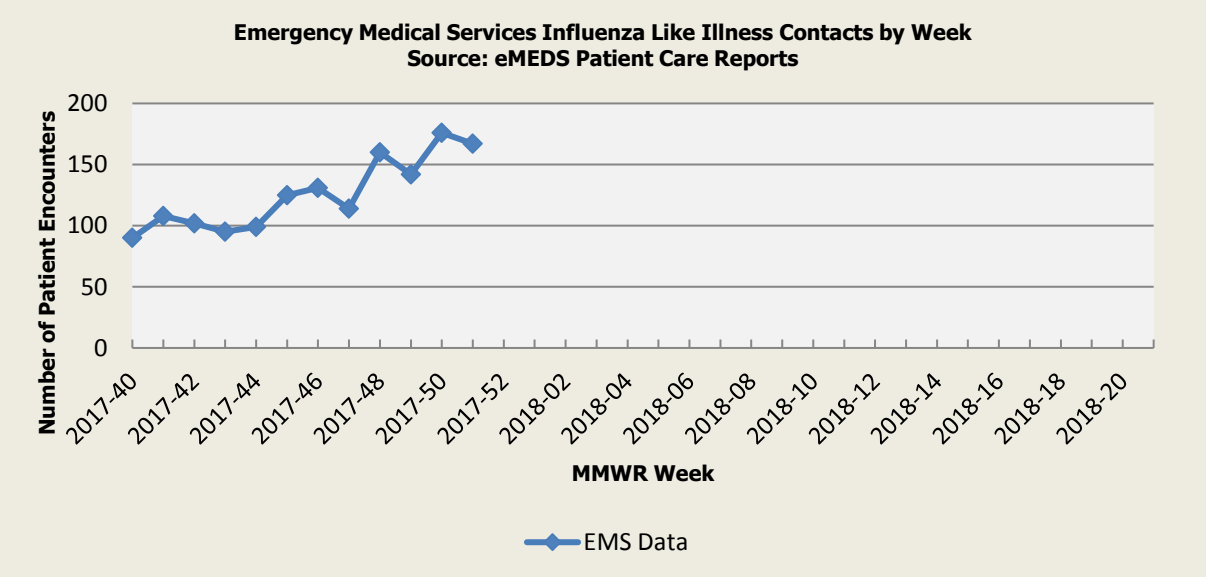
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 51 was: Wide-spread Geographic Spread with Minimal Intensity.



	Influenza-like Illness Baseline Data Week 1 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.66	12.95	11.89	11.20	11.93
Median Rate*	7.66	9.63	9.05	8.51	9.00

* Per 100,000 Residents



Disclaimer on eMEDS flu related data: These data are based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. These data are reported for trending purposes only.

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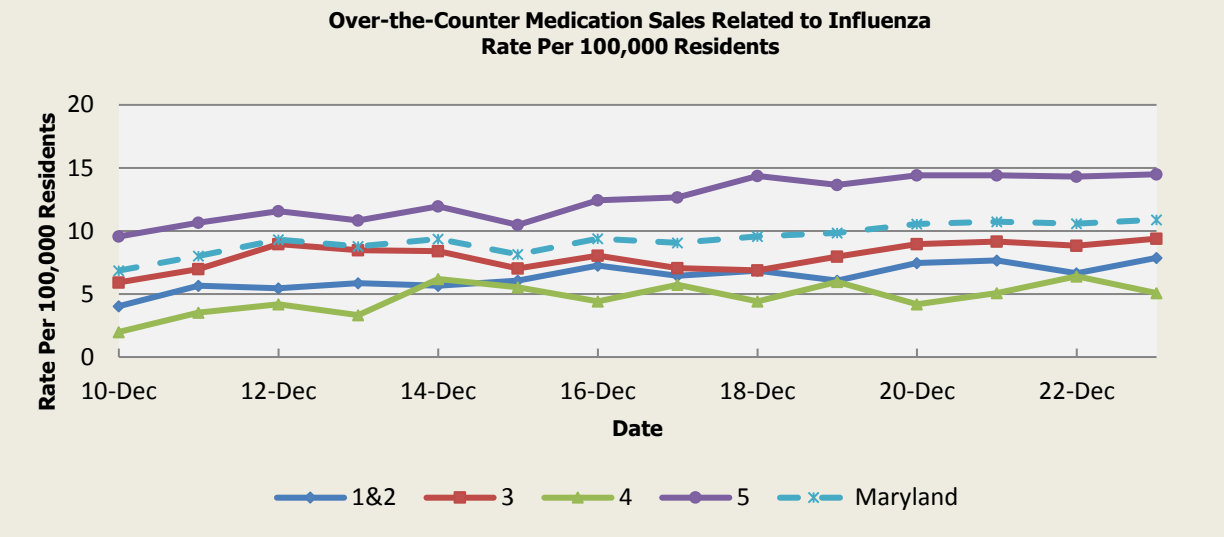
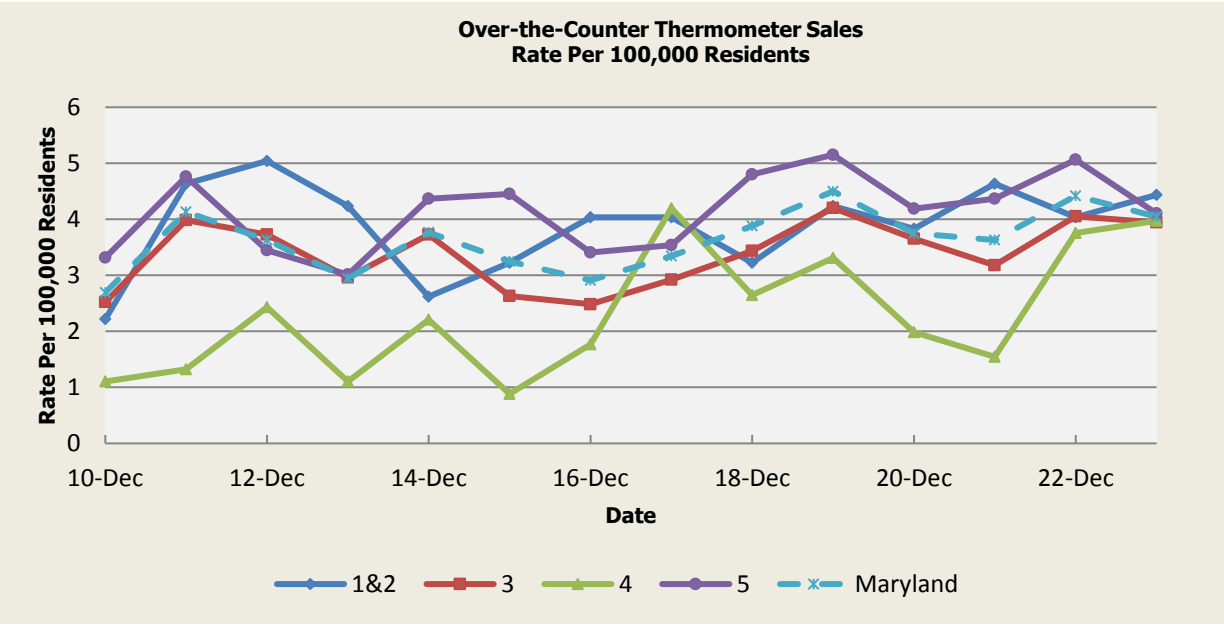


There was an appreciable increase above baseline in the rate of OTC medication sales on 11/13 (Region 3) during this reporting period. This increase is not known to be associated with any outbreaks.

	OTC Medication Sales Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.69	4.81	2.72	8.26	5.88
Median Rate*	3.23	4.38	2.43	8.03	5.52

* Per 100,000 Residents



There was not an appreciable increase above baseline in the rate of OTC thermometer sales during this reporting period.

	Thermometer Sales Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.21	3.11	2.42	4.11	3.45
Median Rate*	3.02	3.03	2.43	4.06	3.36

* Per 100,000 Residents

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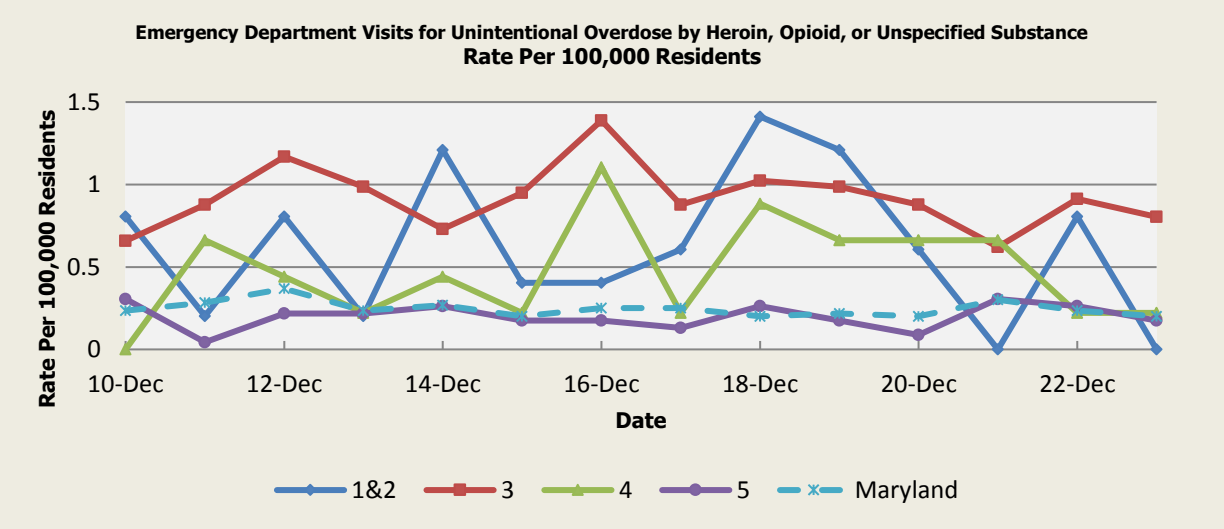
SYNDROMIC OVERDOSE SURVEILLANCE

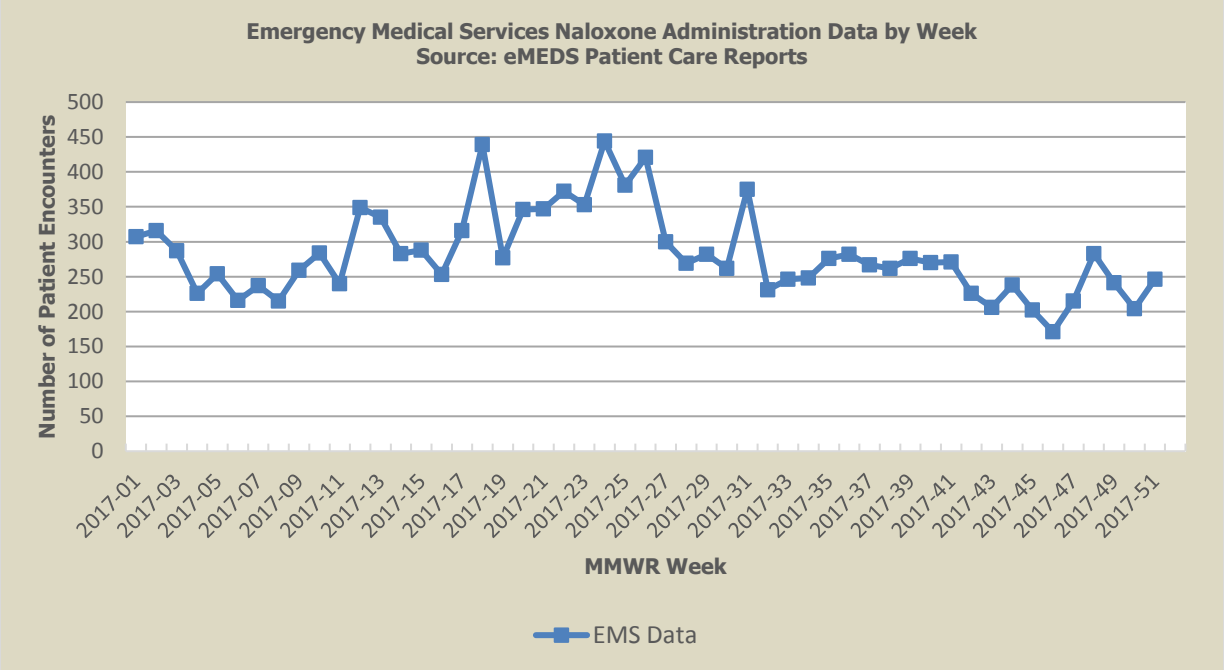
The purpose of this section is to characterize non-fatal ED visit trends for acute unintentional overdose by Heroin, Opioid or Unspecified substance among Maryland residents captured by ESSENCE data, including chief complaint and discharge diagnosis. ED visits that are identified as unintentional overdose by Heroin, Opioid or Unspecified substance include those with medical and non-medical use of a prescription Opioid or where the substance is not specified, given evidence that most fatal overdoses are Opioid-related.



Disclaimer on ESSENCE Overdose related data: ESSENCE chief complaint and discharge diagnosis query for overdose-related illness includes but is not limited to the following terms: heroin, opioid, speedball, dope, fentanyl, naloxone, narcan, and overdose.

	Non-fatal Overdose ED Visit Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.30	0.39	0.34	0.14	0.28
Median Rate*	1.01	1.32	1.10	0.48	0.99

* Per 100,000 Residents



Disclaimer on eMEDS naloxone administration related data: These data are based on EMS Pre-hospital care reports where the EMS provider has documented that they administered naloxone. The administration of naloxone is based on the patient's signs and symptoms and not on any diagnostic tests. These data are reported for trending purposes only.

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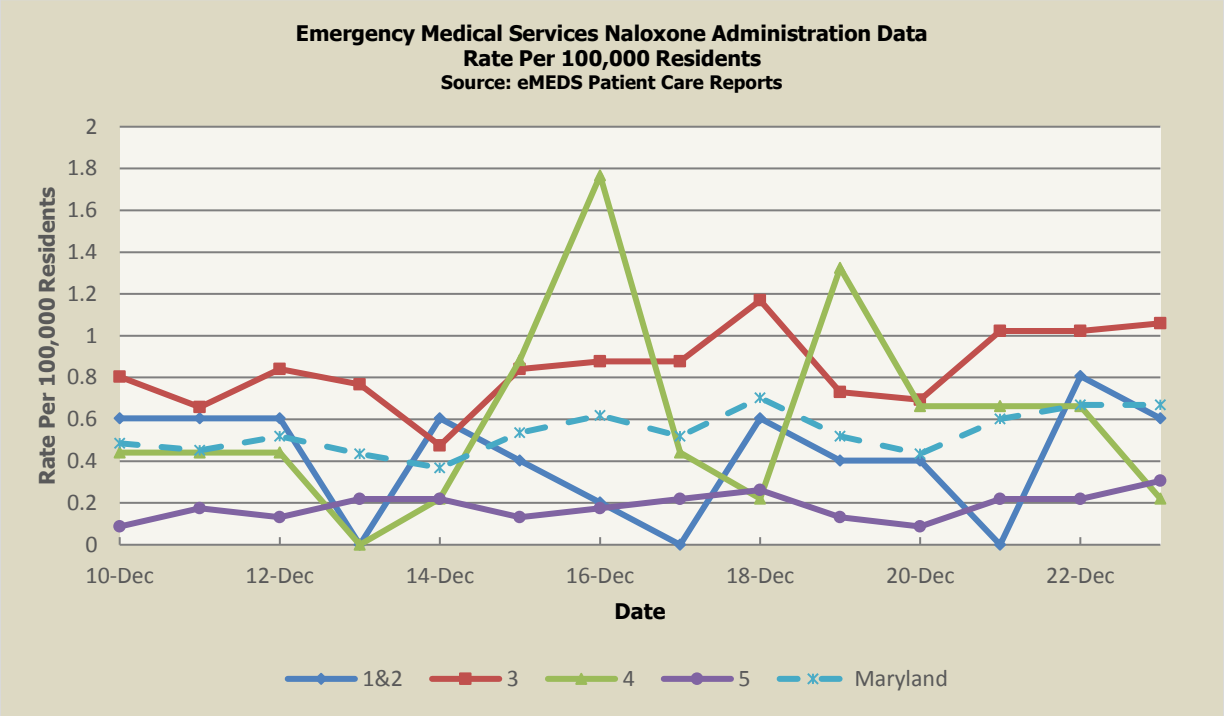

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	EMS Naloxone Administration Data Baseline Data January 1, 2017 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.30	0.39	0.34	0.14	0.28
Median Rate*	1.01	1.32	1.10	0.48	0.99

* Per 100,000 Residents

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PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. Presently, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national, and global levels are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of December 07, 2017, the WHO-confirmed global total (2003-2017) of human cases of H5N1 avian influenza virus infection stands at 860, of which 454 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

AVIAN INFLUENZA

AVIAN INFLUENZA, HPAI H5, WILD BIRDS (HONG KONG) 27 Dec 2017, Two dead birds found at different locations in Hong Kong tested positive for the H5 avian flu virus on Friday [22 Dec 2017], the Agriculture, Fisheries and Conservation Department said. Further tests are being carried out to confirm the results, while both sites where the birds' bodies were discovered have been thoroughly disinfected, according to authorities. Read More: https://www.promedmail.org/post/5524475

AVIAN INFLUENZA, WILD BIRD, HPAI H5N6, OIE (HONG KONG) 26 Dec 2017, The Agriculture, Fisheries and Conservation Department (AFCD) of Hong Kong said (25 Dec 2017) that a dead Oriental magpie robin found in To Lok Road, Tseung Kwan was confirmed to be H5N6 positive after laboratory testing. The dead Oriental magpie robin was found and collected in 8 To Lok Road, Tseung Kwan O, last Thursday (21 Dec 2017), and was suspected to be H5 positive after initial laboratory testing last Friday (22 Dec 2017). The Oriental magpie robin is a common resident of Hong Kong. Read More: https://www.promedmail.org/post/5523125

AVIAN INFLUENZA, HPAI H5N6, POULTRY, SPREAD, SOUTH KOREA (JEOLLABUK-DO) 25 Dec 2017, The South Korean government on [Sat 23 Dec 2017] confirmed an outbreak of highly pathogenic avian influenza (AI) at a local duck farm. The H5N6 bird flu was discovered on the farm with 29 000 ducks in Jeongeup, 260 km [161.55 mi approx] south of Seoul, according to the Ministry of Agriculture, Food and Rural Affairs. The latest discovery raised the total number of farms contaminated with the disease to 4, including one in Gochang, 300 km [186.41 mi approx.] southwest of Seoul, and 2 in Yeongam, 380 km [236.12 mi approx.] south of the capital. The government said influenza found in wild bird droppings in Cheonan, 90 km [55.92 mi approx.] south of Seoul, also tested positive as H5N6. Read More: https://www.promedmail.org/post/5522769

AVIAN INFLUENZA, HPAI H5N8, POULTRY (IRAN) 25 Dec 2017, Major egg producing Iranian provinces, namely Qazvin, Tehran, Alborz and East Azarbaijan, are dealing with an outbreak of avian flu, which has led to the culling of 16 million chicken and a rise in egg prices, the chairman of the board of directors at Tehran's Union of Producers of Egg-Laying Chicken said. Nasser Nabipour added that the outbreak has caused losses worth over 20 trillion rials (USD 477.44 million) to production units. Read More: https://www.promedmail.org/post/5522665

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HUMAN AVIAN INFLUENZA

AVIAN INFLUENZA, HUMAN, HUMAN-ANIMAL INTERFACE (WHO) 27 Dec 2017, A 33-year-old male resident of Guangxi Province, China, developed symptoms on 7 Nov 2017. He was hospitalized on 12 Nov 2017 and passed away on 30 Nov 2017. The patient had exposure to live poultry before the illness onset; no further human cases were reported among 3 close contacts of this case. Additional information on the virus from the case is anticipated. Read More: https://www.promedmail.org/post/5523467

NATIONAL DISEASE REPORTS

For National Disease Reports, please visit www.promedmail.org*.*

INTERNATIONAL DISEASE REPORTS

For International Disease Reports, please visit www.promedmail.org*.*

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.health.maryland.gov/ or follow us on Facebook at www.facebook.com/MarylandOPR.

More data and information on influenza can be found on the MDH website:
http://phpa.health.maryland.gov/influenza/fluwatch/Pages/Home.aspx

Please participate in the Maryland Resident Influenza Tracking System (MRITS): http://flusurvey.health.maryland.gov

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	(([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A

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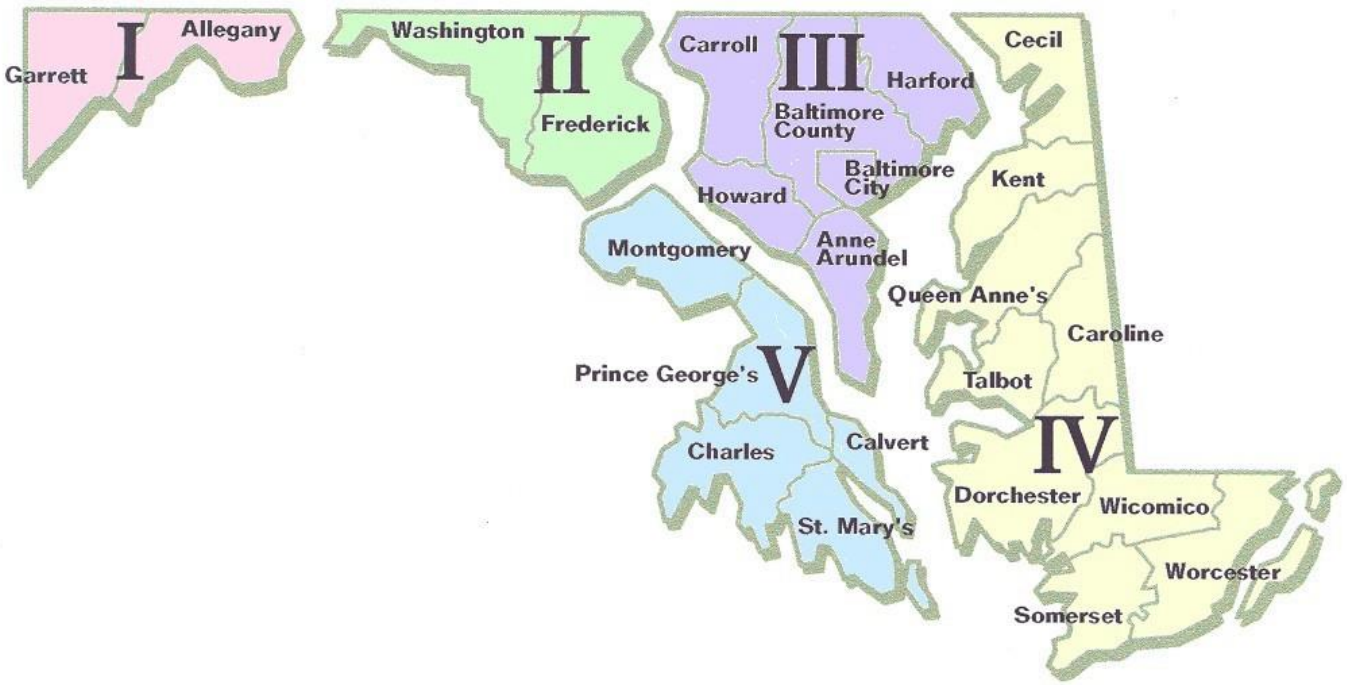
Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE
Regions 1 & 2	Allegany County Frederick County Garrett County Washington County
Region 3	Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County
Region 4	Caroline County Cecil County Dorchester County Kent County Queen Anne's County Somerset County Talbot County Wicomico County Worcester County
Region 5	Calvert County Charles County Montgomery County Prince George's County St. Mary's County



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